30 Aug 1995
WPNSSB

PS1BN-G

POWER SUPPLY

1. GENERAL. This procurement requires an autoranging dc power supply.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. OPERATIONAL REQUIREMENTS. The equipment shall be capable of operation within the minimum accuracies, limits, and specifications set forth below. All percentages are of power supply setting.

3.1 Output voltage and current. Continuously adjustable from 0 to 40 Vdc, 0 to 25A. Maximum power: 400W. P1 = 40V, 9A. P2 = 27V, 14A. P3 = 17V, 23.5A.

3.1.1 Load regulation. For no-load to full-load excursions: 0.01% + 5 mV voltage regulation, 0.01% + 10 mA current regulation.

3.1.2 Line regulation. For line-voltage variations of 103.5 to 126.5 Vac: 0.01% + 3 mV voltage regulation, 0.01% + 10 mA current regulation.

3.1.3 Ripple and noise. 8 mVrms maximum.

3.1.4 Temperature coefficient. Per degree C change in the ambient temperature: 0.02% voltage regulation, 0.03% current regulation.

3.1.5 Drift. For eight hours with constant line, load, and ambient temperature: 0.05% voltage regulation, 0.05% current regulation.

3.1.6 Voltage transient recovery. For load variations of 10%: 2 ms.

3.2 Digital indicators. Output voltage and current. Accuracy: ±1.0%.

3.3 Connectors. Three-way front or rear panel binding posts for positive output, negative output, and chassis ground connections.

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Maximum power consumption: 3 kW.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. Requests for approving the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.